

groups in high risk. The aim of the study is to evaluate the economic consequences of the vaccination against HAV in population groups at high risk and to compare the results with the vaccination of all 1-year old children in the population. **METHODS:** Cost-benefit analysis was performed based on epidemiologic data for the number of incidents in the high risk groups and the treatment cost of the HAV infected individuals. Those costs were compared with the cost of vaccination. Two vaccination scenarios were created 1. Prophylactic one dose vaccination and 2. One initial and one booster dose application. The validity of the results was tested with sensitivity analysis using tornado diagram. **RESULTS:** The vaccination of all people in the high risk group (n=32 606) induces savings for the health care system because the cost of vaccination is less than the cost of treatment of the people with HAV infection (n=4565). The cost of vaccination varies from €1 257 322 to €2 514 646 depending on the vaccination regimen: "first scenario" and "second scenario", respectively. The expenditures for infected peoples' therapy are €2 547 254. Thus the net savings account for €1 289 932 and €32 608, respectively. **CONCLUSIONS:** The analysis confirms that the vaccination against hepatitis A infection is cost-saving for the health care if performed in groups at high risk and in the periods of epidemic outbreaks.

PIN30

PRELIMINARY ASSESSMENT OF THE COST OF TREATMENT FOR CHRONIC HEPATITIS C VIRUS INFECTIONS WITH SOFOSBUVIR AND FIRST GENERATION ANTIVIRALS ACROSS EIGHT COUNTRIES

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OBJECTIVES: The new wave of HCV drugs reaching the market in 2014 offer higher cure rates and shorter treatment times; however, the new antivirals have been met with concerns regarding the costs associated with the new drugs by payors and the WHO. We have set out to examine the costs of treatment with sofosbuvir, compared to first generation antivirals in eight countries. **METHODS:** We examined the ex-manufacturer price of sofosbuvir, telaprevir and boceprevir in Norway, Denmark, Germany, Luxembourg, Portugal, Slovenia, Turkey, and the United States. Treatment costs were calculated using standard of care protocols for treatment of HCV genotype 1, including individual daily dosage strength and length of recommended treatment for each antiviral. Interferon and ribavirin costs, any potential discounts or rebates negotiated with payors and potential follow-up courses of therapy for sofosbuvir were excluded from the study. Prices were extracted from IHS Life Sciences' international pricing database POLI. All foreign currency was converted to USD using XE Currency Converter for comparison. **RESULTS:** Costs of treatment with sofosbuvir varied significantly across the eight countries, being highest in the US at USD84,000 then Portugal at USD75,816 down to USD52,051 in Norway. Telaprevir and boceprevir treatment costs range from a low of USD21,534 and USD14,111 in Turkey respectively, to a high of USD66,155 and USD40,120 in the US. On average across the eight countries, treatment with sofosbuvir was 104% higher than telaprevir, and 187% higher than boceprevir, based on the list price. **CONCLUSIONS:** Our preliminary assessment has highlighted the variable treatment costs of HCV antivirals across countries. Comparisons of treatment costs with next generation treatments versus first-generation antivirals will see expenditure for HCV therapeutics increase significantly. However, sofosbuvir has demonstrated cure rates of over 95% in genotype 1 HCV patients with a favourable safety profile, thus reducing costs of re-treatment, medical visits, and treatment of advanced liver disease.

PIN31

COST ANALYSIS FOR MANAGEMENT AND PREVENTION OF HEPATITIS B VIRUS REACTIVATION

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OBJECTIVES: To prevent reactivation of hepatitis B virus (HBV) following chemotherapy or immunosuppressive therapy, appropriate clinical managements including HBV screening and antiviral prophylaxis for patients at risk of reactivation should be provided. Cost information of managing HBV reactivation is needed to evaluate cost-effectiveness of HBV prevention strategies in Japan. **METHODS:** Annual number of patients who have received cancer chemotherapy, biologic therapy for rheumatoid arthritis, or stem-cell / organ transplantation was estimated using information of national statistics and expert opinions. Costs of HBV screening and antiviral prophylaxis were calculated by following the HBV reactivation management guideline and reimbursement prices. A Markov model was created to compare two vaccination strategies of HBV infections (current selective vaccine program vs. new universal vaccine program) by considering risk of receiving chemotherapy or immunosuppressive therapy, management costs of HBV reactivation, and disease-specific mortality, during 90 years of follow-up. **RESULTS:** Costs for HBV reactivation management were estimated 688 yen per person in selective vaccination strategy compared with 350 yen per person in universal vaccination strategy, with annual discount rate of 3%. On one-way sensitivity analysis, estimated costs were sensitive to annual discount rates and risks of HBV infections. **CONCLUSIONS:** Absolute difference in the HBV management costs was relatively small compared with vaccine program costs. Since the management of HBV reactivation was not always provided for all patients at risk, a further cost analysis should be conducted by reflecting real-world clinical practice.

PIN32

MEDIAN HOSPITALIZATION COST AND LENGTH OF STAY FOR CARBAPENEM-RESISTANT VERSUS CARBAPENEM-SENSITIVE PATIENTS IN A TERTIARY CARE HOSPITAL IN SOUTH INDIA

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OBJECTIVES: To find out the average cost of hospitalization and length of hospital stay for patients infected with carbapenem-resistant bacteria and compare it with that of patients infected with carbapenem-sensitive bacteria. **METHODS:** A cross sectional study was carried out for 3 months and the data for hospitalization cost was collected for the patients with carbapenem resistant and carbapenem sensitive infections from the medicine ICU and the microbiology department for 114 patients with bacterial infections who were admitted to Intensive care unit. The data was analyzed for the type of infection and the average hospitalization cost. The median hospitalization cost was calculated for both the group of patients. **RESULTS:** Out of 247 patients admitted in the ICU during a three month period 70 (28.34%) were found to be having carbapenem-resistant infections and 44 (17.81%) were found to have carbapenem-sensitive infections. The median length of stay in the hospital was 9 days for carbapenem-sensitive patients while 23.5 days in case of carbapenem-resistant patients. The median hospitalization cost was found to be 40185 INR in case of carbapenem sensitive patients while it was 126889.5 INR in case of carbapenem-resistant patients. **CONCLUSIONS:** Carbapenem-resistance is observed to be increasing the morbidity and cost burden on the patients substantially. Increased length of hospital stay leads to an increase in the incidence of Nosocomial infections which further leads to the increased morbidity, mortality and cost burden on the society.

PIN33

TREATMENT OF MRSA PNEUMONIA: ECONOMICAL AND CLINICAL COMPARISON OF LINEZOLID VERSUS VANCOMYCIN

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OBJECTIVES: Infections with methicillin resistant *Staphylococcus aureus* (MRSA) pathogens represent a substantial economic burden for the health care system. Although the expenses directly related to the antibiotics used for the treatment of MRSA infections are generally negligible in relation to the total MRSA-related hospital costs, the prices of the drugs often influence the therapy decisions. The objective of this study was to investigate – in a clinical routine setting – the overall costs of stay on intensive care unit (ICU) and the clinical effectiveness of treatment with linezolid compared to vancomycin in patients with MRSA pneumonia. **METHODS:** This was a retrospective analysis of reimbursement and medical data of adult patients who were treated for MRSA pneumonia in German hospitals between 2008 and 2012. Propensity score adjustment was applied to reduce the effect of confounding. **RESULTS:** 95 of the 226 patients included received linezolid as initial therapy for MRSA pneumonia and 131 received vancomycin. The analysis of the total costs of stay on ICU did not reveal any major differences between the two treatment groups (cost ratio linezolid/vancomycin: 1.29; 95% confidence interval (CI): 0.84 – 1.98; p = 0.24). Analyses of clinical data showed a decreased likelihood of therapy failure (= switch to another antibiotic) (logistic regression analysis; odds ratio linezolid/vancomycin: 0.183; 95% CI: 0.052 – 0.647; p < 0.01) and a decreased risk of dying in hospital (Cox proportional hazard regression analysis; hazard ratio linezolid/vancomycin: 0.508; 95% CI: 0.305 – 0.846; p < 0.01) in the linezolid group. **CONCLUSIONS:** Despite higher drug acquisition costs, the total costs of stay on ICU were not significantly higher in patients receiving linezolid than in patients receiving vancomycin. The clinical effectiveness, on the other hand, was superior: Both, the rate of therapy failures and the all-cause hospital mortality rate were substantially lower in patients who received linezolid.

PIN34

FIXED DOSE COMBINATIONS OF NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITOR FOR NAÏVE PATIENT WITH HIV INFECTION IN RUSSIA: COST COMPARISON ANALYSIS

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OBJECTIVES: To compare treatment costs for the fixed dose combination (FDC) tenofovir and emtricitabine (TDF/FTC) versus FDC abacavir and lamivudine (ABC/3TC) each in combination with efavirenz (EFV) in treatment-naïve adults with HIV-1 infection in Russia. **METHODS:** A mathematical model was developed in Microsoft Excel to evaluate costs of treatment, including drug (1st and 2nd lines of therapy) and patient management costs. In the model individuals remained on their current regimen or moved to the 2nd line of therapy after the first 48 weeks on therapy. Transition probabilities were based on the proportion of patients with viral response measured as HIV-1 RNA < 50 copies per milliliter from the clinical trial with TDF/FTC + EFV vs ABC/3TC + EFV head-to-head comparison. Cost calculations were based on registered drug prices, reimbursement rates in public medical insurance and data on government procurement in Russia in 2014. **RESULTS:** It was expected that after the 48 weeks of treatment 71.0% of patients in TDF/FTC + EFV group and 59.4% of ABC/3TC + EFV remain on the initial regimen. The total average costs per patient for 96 weeks of therapy, including drug (1st and 2nd lines of therapy) and patient management costs, were lower for TDF/FTC + EFV (€6,528) than for ABC/3TC + EFV group (€7,123). **CONCLUSIONS:** FDC TDF/FTC in 1st line therapy in treatment-naïve adults with HIV-1 infection in combination with EFV was predicted to be cost-saving compared with FDC ABC/3TC+EFV for 96 weeks of treatment in Russian Federation.

PIN35

POTENTIAL RISK-SHARING AGREEMENTS FOR VACCINES

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OBJECTIVES: After each negotiation between a health care provider and a payer, financial risks exists that may jeopardize the payer's budget. Risk-sharing agreements (RSAs) in medical care can be used to reassure payers on budget trajectory. This has grown during the recent years resulting from increased budget restric-